

WHAT IS CLAIMED IS:

1 1. A content exchange apparatus for cacheing content objects, the
2 content exchange apparatus comprising:
3 a content store comprising a plurality of content objects;
4 a content tracker that determines the content objects stored in the content
5 store;
6 an origin server database comprising a list of origin servers associated with
7 the content exchange; and
8 a catalog of content objects stored in the content store.

1 2. The content exchange apparatus for cacheing content objects as
2 recited in claim 1, wherein the list of origin servers is modified to exclude a particular
3 origin server when a determination is made that the particular origin server is no longer
4 available.

1 3. The content exchange apparatus for cacheing content objects as
2 recited in claim 1, wherein the list of origin servers contains some origin servers that have
3 no content objects stored in the content exchange.

1 4. The content exchange apparatus for cacheing content objects as
2 recited in claim 1, wherein content objects associated with a particular origin server are
3 removed from the content store when a determination is made that the particular origin
4 server is no longer available.

1 5. The content exchange apparatus for cacheing content objects as
2 recited in claim 1, wherein:
3 the content store is divided into a first section and a second section;
4 the first section comprises a cache where less frequently requested content
5 objects are purged in favor of more frequently requested content objects; and
6 the second section comprises a file system where content objects remain
7 stored in the content store for a period of time regardless of request frequency.

1 6. The content exchange apparatus for cacheing content objects as
2 recited in claim 1, further comprising a content controller, wherein the content controller
3 finds a requested content object not presently retained in the content store.

1 7. The content exchange apparatus for cacheing content objects as
2 recited in claim 1, further comprising a content controller, wherein the content controller
3 finds a requested content object not presently retained in the content store on one of:
4 another content exchange and the origin server.

1 8. The content exchange apparatus for cacheing content objects as
2 recited in claim 1, further comprising an information repository comprising status
3 information related to the content exchange.

1 9. A content storing system for cacheing content objects, the content
2 storing system comprising:
3 a first content exchange;
4 a second content exchange; and
5 a content bus coupled to the first and second content exchanges, wherein:
6 the first content exchange comprises an origin server database
7 comprising a list of origin servers associated with the first content exchange, and
8 the list of origin servers contains a plurality of origin servers that
9 have no content objects stored in the first content exchange.

1 10. The content storing system for cacheing content objects as recited
2 in claim 9, wherein the list of origin servers is modified to exclude a particular origin
3 server when a determination is made that the particular origin server is no longer
4 available.

1 11. The content storing system for cacheing content objects as recited
2 in claim 9, wherein content objects associated with a particular origin server are removed
3 from the content store when a determination is made that the particular origin server is no
4 longer available.

1 12. The content storing system for cacheing content objects as recited
2 in claim 9, wherein:
3 the second content exchange is divided into a first section and a second
4 section;
5 the first section comprises a cache where less frequently requested content
6 objects are purged in favor of more frequently requested content objects; and

7 the second section comprises a file system where content objects remain
8 stored in the second content exchange for a period of time regardless of request
9 frequency.

1 13. The content storing system for cacheing content objects as recited
2 in claim 9, wherein the content bus transports a requested content object not presently
3 retained in the first content exchange from the second content exchange.

1 14. The content storing system for cacheing content objects as recited
2 in claim 9, further comprising a content controller, wherein the content bus transports a
3 requested content object not presently retained in the first content exchange from one of
4 the second content exchange and an origin server.

1 15. A method for caching content objects in a content exchange, the
2 method comprising steps of:
3 storing content objects requested from the content exchange;
4 receiving information about an origin server from that origin server;
5 storing the information in a database;
6 determining a network address for the origin server using the database; and
7 contacting one of the origin server and another content exchange when a
8 content object request results in a cache miss.

1 16. The method for caching content objects in the content exchange as
2 recited in claim 15, wherein the database comprises an origin server identifier and an
3 origin server address for each associated origin server.

1 17. The method for caching content objects in the content exchange as
2 recited in claim 15, wherein the storing step comprises a step of storing an origin server
3 identifier and an origin server address for each associated origin server.

1 18. The method for caching content objects in the content exchange as
2 recited in claim 15, wherein the determining step comprises a step of querying the
3 database for an origin server address associated with a provided origin server identifier.

1 19. The method for caching content objects in the content exchange as
2 recited in claim 15, wherein the contacting step comprises steps of:

- 3 determining if any other content exchange has at least a portion of the
- 4 content object;
- 5 requesting the portion if the portion is found on any other content
- 6 exchange; and
- 7 requesting the portion from the origin server if the portion is not found on
- 8 any other content exchange.

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